

DETERMINANTS OF E-GOVERNMENT ACCEPTANCE: AN EMPIRICAL INVESTIGATION IN SAUDI ARABIA

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Abstract: This study aims to identify and understand factors that affect to acceptance e-government in Saudi Arabia. This study integrates technology acceptance model (TAM) with trust and social influence factors. The primary data were collected from 384 valid questionnaires, which were distributed, to random Saudi Arabia users. The analyses of the gathered data employed the SPSS. The validity of the final overall model was evaluated using the statistics and acceptable fit of the measurement model to the data has been demonstrated. Based on the outcomes, the factors with the highest direct effect on Intention to use e-government appeared to be Attitude toward using e-government, while the factor with the highest indirect effect on Intention to use e-government appeared to be Compatibility. The main findings of the study are: trust factor has a positive and significant impact on perceived ease of use and perceived usefulness. Ease of use and Trust, Social influence perceived usefulness has the stronger impact on user's attitude, which in turn influences customers' intention to use e-government services.

Keywords: e-government, Perceived ease of use, Perceived usefulness, Trust, Social Influence.

1. INTRODUCTION

The success or failure of e-government has so far been mainly investigated post trial (Walid & khaled, 2013). As such, before e-government is implemented, it is necessary to probe into the elements that impact the acceptance of citizens such as factors of acceptance, limitations and requirements (Abuali et al., 2010).

This is done to help ensure that the money and time invested into the implementation of the system are well-spent and further, generate success (citizens' acceptance). Apart from that, the investigation could assist government in aligning their strategic planning with the demands of the citizens and thus, this will lead to better investment in technology (Alshomrani, 2012). Also, as indicated by Alateyah et al. (2013), e-government is a significant alternative platform for services, and owing to that, having the knowledge on the influencing factors of e-government acceptance among citizens.

Further, when factors associated with the acceptance of e-government are identified, the government implementing this services method can improve on the delivery of services to the citizens. Apart from that, when these factors are incorporated into the business process, pedagogy and services will be more efficient and citizens loyalty will be increased (Alateyah, et al., 2014).

However, according to alshboul et al. (2018), it would be recommended to the government to expect the potential factors that would impact the intention of the citizens to encourage them to use e-government for the proper investment into the developments of PC service and content.

Nonetheless, it would be hard for the citizen's to get the information if they fail to accept a new technology. However, factors such as Trust and social influence factor impede the involvement of users in e-government or acceptance of new information technology (Al-Gahtani, S. 2011). As such, this necessitates a research that identifies the factors that are considered vital in the acceptance of e-government from the government's viewpoint.

Based on the discussions above, it is evident that there are two issues that prevail in the implementation of e-government. These issues are: disparity with regard to the perceptions of technology between the citizens and the government, and insufficient knowledge and incorporation of citizens' acceptance when deciding on technology investment.

This is why it is important to look into the factors, limitations and requirements influencing the acceptance of e-government among citizens. Taking into account the abovementioned, ascertaining the underlying factors or dimensions that influence the acceptance of citizens towards e-government becomes the aim of the present study. Then, this study will attempt to formulate a model of e-government acceptance.

Among the factors that are found to be affecting the acceptance of citizens towards e-government are, Trust and social influence. Additionally, the factor Trust also affects users' acceptance intention. Further, according to Al-Gahtani, S. (2011), Trust also shows a positive causal relationship between the satisfaction of user concerning a web portable as well as the perceived overall Trust. Apart from that, the most questioned aspect of citizens' interest of e-government is the understanding of social influence, as described by Cruz et al. (2014), is an extent to which an individual views that significant others are confident that he or she should utilize the new system. Hence, prior studies have demonstrated that a citizen's decision is normally influenced by peer citizens or by other people such as instructors and parents (alzubai, 2017).

The knowledge of the determining factors of citizens' acceptance in e-government will contribute in the area of e-government as this knowledge will provide an important theoretical perspective. Resulting from this, the development of services that are more effective and more meaningful in the context of government environment could be achieved with the expansion of the technology acceptance model (TAM).

2. TECHNOLOGY ACCEPTANCE MODEL (TAM)

Technology acceptance model or TAM was formulated for expounding the determining factors of user acceptance in an expansive array of end-user computing technologies (F. D. Davis, 1986). As stated by Tung, et al., (2014), this model was based on Ajzen and Fishbein's (1980) theory of reasoned action or TRA. Additionally, since TRA is a model that is well-established, many scholars various fields employ it in explaining and predicting human behaviour.

Originally, TAM consisted of five components namely, perceived ease of use (PEOU), perceived usefulness (PU), attitude toward using (ATU), behavioural intention to use (BI), and behaviour system use. Specifically, as indicated by Fred D. Davis (1989) PEOU represents the degree to which a user is sure that utilizing certain service would be effortless, while PU means the degree to which an individual is confident that using certain system would improve the performance of his or her job. PEOU and PU are the two most essential factors for system use and in fact, according to Liu and Han (2010) these two elements (PEOU and PU) are the key beliefs which lead to user acceptance of information technology. Meanwhile, ATU directly predicts BI of the users, which determines AU. Later, an extension of TAM or known as TAM2 was proposed by Venkatesh and Davis (2000). As an extension of TAM, TAM2 added a new components namely, output quality, image, job relevance, voluntarism, result demonstrability and subjective norm) and omitted ATU because it is perceived as weak predictors of either BI or AU.

3. RESEARCH MODEL FACTORS

• SOCIAL INFLUENCE

Social influence is referred as the level to which a person feels that important others are convinced that he/she should employ a technology (Al-Gahtani et al., 2007). In other words, in the context of technology, social influence explains the degree to which users perceive that their significant others are of the view that the users are obliged to use a new information system.

Specifically in PC services, this concept proposes that social influences (e.g. peers, parents, etc.) will impart strong impact on the intention of younger Citizens in accepting and using PC devices for services purposes. Not only that, social influence on behavior intent also appears to be more prevalent during the initial and early stages of PC services but will become less significant over time as the experience gained by user (through consistent PC device use) increases. Thus, as indicated by Davis et al. (1989), the effect of social influences in the acceptance and utilization of information technology denotes a crucial need for a better understanding of TAM's real life application.

- **TRUST**

In this section, the notion of trust will be highlighted in two subsections. The first subsection, will discuss the opinions of various scholars on trust, whereas the second subsection explains the concept of sellers trust, and the medium of trust which specifically refers to the Internet, in addition to their application within the context of E-government studies.

Among the scholars who have highlighted the concept of trust include Pennington et al. (2004), and these scholars come from many disciplines. As such, the definition of trust is shaped by the instigating discipline. The initial recognition of the concept of trust occurred in the psychology field, but it later become important in other disciplines as well such as the disciplines of government , politics, technology, organisation, security (Castelfranchi & Falcone, 2010), as well as sociology (Pennington et al., 2004). It should be noted however, a general definition of this concept is still not available to this date.

4. RESEARCH FRAMEWORK AND HYPOTHESIS

The present study intends to set up a hypothetical model that could offer explanation and prediction on Citizens' acceptance and usage of E-government services in the setting of higher education. In the formation of the model, the TAM's belief - intention – behavior relationship will be used. Specifically, this relationship postulates that Citizens' actual of E-government use is instantaneously controlled by their behavioural intention to use (BI) (Venkatesh et al., 2003).

H1: Trust in E-government service has a direct effect on behavioural intention to use E-government service.

H2: Social influence on E-government service has a direct effect on behavioural intention to use E-government service.

H3: A Citizen's perceived usefulness towards E-government service has a direct effect on behavioural intention to use E-government service.

H4: A Citizen's perceived Ease of Use of E-government service has a direct effect on behavioural intention to use E-government service.

All hypotheses are interrelated and they are the building blocks of the model proposed by this study. The model proposed by the study is called E-government Acceptance Model and it is illustrated in Figure 1.

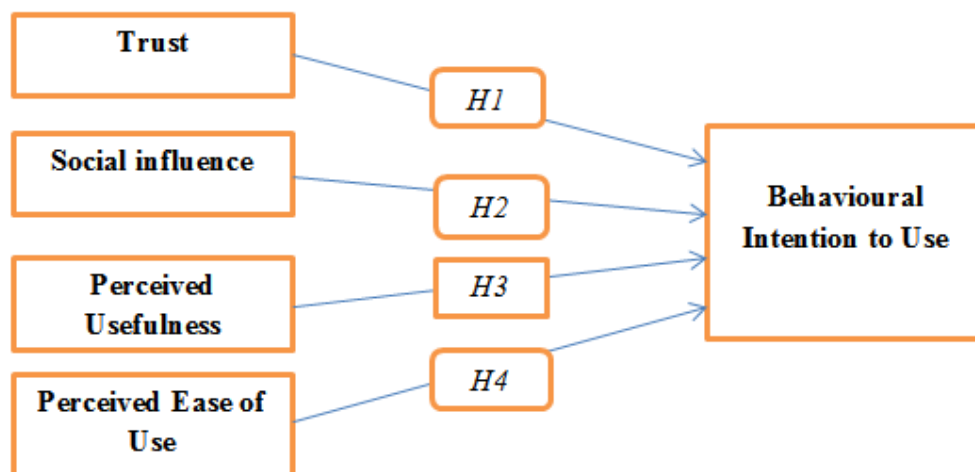


Figure 1: Research Model Hypotheses

5. RESEARCH METHODOLOGY

This research employed 384 users aged 18 and above enrolling in among Saudi Arabia citizen as respondents. As for data, they were obtained online (online questionnaires at www.surveymshare.com). There is only one part to the questionnaire. This one part contains items, which represent several constructs. The 5-point scale was chosen for measuring the acceptance level of users. In order to measure the association between the four primary factors and behavioral intention to

use E-government in Saudi Arabia, this study utilized regression analysis. This study attempts to construct an integrated framework with the capacity of measuring the citizen s' readiness to interact with E-government. In the investigation of these citizen s' readiness, validation to the trust factor with Technology Acceptance Model (TAM) has to be performed.

6. DATA ANALYSIS

Model 1, with behavioral intention as the dependent variable together with social Influence (SI), Trust (T), Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as the independent variables, was analysed using multiple regression analysis. Table 4.5 presents the results

As indicated by Hair et al. (1998), the coefficient of determination (R^2) measures the proportion of the total variance of the dependent variable with respect to its mean which is portrayed by the independent variables or the predictor variables. If the resultant R^2 value is high, then, the regression model's explanatory power will be good. In this study, the regression model R^2 value obtained for the dependent variable behavioral intention (BI) is 0.653. This indicates that 65.3% of the total variance in behavioral Intention (BI) of citizens is described by the model of regression. Additionally, the value obtained (0.653) is regarded as high. As such, the regression model's power is considered as good. This implies that the model demonstrates significance statistics-wise ($F=117.269$, $p<0.001$). Further, the regression coefficients' values as well as their significance, establishes the factors comprised in the model.

Regression model validates the hypotheses below:

H1: SI---BI there is a positive relationship between Social Influence and behavioral Intention of E-government ($\beta= 0.085$, $P<0.05$).

H2: T-----BI there is a positive relationship between Trust and behavioral Intention of E-government ($\beta= 0.132$, $P<0.001$).

H3: PU-----BI there is a positive relationship between Perceived Usefulness factor and behavioral Intention of E-government ($\beta=0.101$, $P<0.001$).

H4: PEOU -----BI there is a positive relationship between Perceived Ease of Use, and behavioral Intention of E-government ($\beta=0.331$, $P<0.001$).

7. CONCLUSION

E-government services are interesting mode of learning. Additionally, in the setting of higher education, these have become the new crucial platform. In relation to this, the current research probed into the prerequisite of e-government services' adoption in the context of higher education setting.

The findings obtained demonstrate that both of the environment and the infrastructure that are available at the higher education institutions are suitable for the diffusion of e-government.

Aside from that, the study offers the foundation of knowledge with respect to the current situation of citizens' awareness pertaining to the services of e-government. Additionally, the study discovered that citizens do indeed possess sufficient knowledge as well as awareness with respect to such technology adoption in their learning setting. Nonetheless, there are also barriers and obstacles which exist that could impede the actual use of e-government.

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